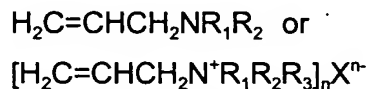


ABSTRACT

USE OF N-ALLYL SUBSTITUTED AMINES AND THEIR SALTS AS BRIGHTENING AGENTS IN NICKEL PLATING BATHS

An aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit. The bath includes nickel ions and an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.